



PATENT

Attorney Docket No. 5291/55433

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Albanese et al. )  
Serial No.: 09/881,083 ) Examiner W. J. Deane Jr.  
Filed: June 13, 2001 ) Art Unit: 2642  
For: NETWORK INTERFACE DEVICE )  
AND HIGH SPEED DELIVERY )  
METHOD THEREFOR )

Commissioner for Patents  
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Alexandria, VA 22313-1450

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*Charles T. Riggs Jr.* 10-27-05  
Charles T. Riggs Jr., Reg. No. 37,430 Date

APPELLANTS' BRIEF

Sir:

In support of Applicants' appeal, and in accordance with 37 CFR 41.37, Applicants herein submit this Appellants' Brief in response to the Final Office Action mailed January 26, 2005 and the Advisory Action mailed July 14, 2005.

I. Real Party in Interest

HyperEdge Corporation of Batavia, Illinois is the real party in interest in this application.

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## **II. Related Appeals and Interferences**

There are no prior or pending appeals, interferences or judicial proceedings known to appellants, appellants' legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this pending appeal.

## **III. Status of Claims**

Claims 1-15 are pending in this application. Claims 1-15 as set forth in the Claims Appendix (Section VIII) below, have been finally rejected for the reasons set forth in the Office Action mailed January 26, 2005, and as maintained in the Advisory Action of July 14, 2005. Claims 1-15 are the claims being appealed.

## **IV. Status of Amendments**

The Amendment filed after the final rejection, on June 27, 2005, has been entered by the Examiner.

## **V. Summary of Claimed Subject Matter**

As a general overview, this application relates to a method and device for delivering high speed telecommunications services in

existing network interface devices (NIDs) (a plastic mechanical enclosure designed for the purpose of terminating the Network Service Provider's (NSP) copper facilities and allowing the customer access to those facilities (see Figure 1 (prior art)) utilizing a Network Interface Unit (NIU). Prior to Applicants' method and system, a traditional NIU had to be installed in proximity to the NID in order to provide NIU test and maintenance capabilities, as well as DSL or T1 termination, with respect to the NID.

Applicants' device comprises an NIU block or module, with an associated removable customer access module (RCAM), which can be mounted in an existing slot cavity of an existing NID to terminate DSL or T1 service, or "pass-thru" T1 service, so as to provide both traditional residential service and high-speed digital service to a customer.

The NIU block or module 60 is installed within the confines of the slot cavities 50 in the NID's network access compartment 30, and comprises a RCAM connector 62, a NSP interface 64, and the NIU circuitry 66. The modified RCAM 70 is installed within the confines of a corresponding single slot cavity 50 in the NID's customer access compartment 20, and comprises a NIU block connector 72, a Customer interface 74, and the modified RCAM circuitry 76.

The RCAM circuitry 76 is modified such that the RCAM 70 can operate to provide to the customer the appropriate DSL or T1 service terminated by the NIU block 60. The NIU block connector 72 operatively connects the RCAM 70 with the NIU block 60 at RCAM connector 62 via electrical connector 78. (See Figure 2).

Accordingly, the following is a concise explanation of the subject matter of each of the independent claims involved in the appeal, as well as every means plus function and/or step plus function appearing in the claims, if any:

**Independent Claim 1** defines a NID 10 comprising a housing defining a network access compartment 30 and a customer access compartment 20, each having slot cavities 50; a network interface unit module 60 mounted in the housing in at least one of the slot cavities 50 of the network access compartment 30; and a corresponding customer access module 70 mounted in the housing in at least one of the slot cavities 50 of the customer access compartment 20 (see e.g., Figure 2; and p. 11, line 18 to p. 13, line 17).

**Independent Claim 9** defines a method of delivering high speed telecommunications services in existing network interface devices having a housing defining a network access compartment 30 and a customer access compartment 20, each having a plurality of slot

cavities 50, wherein the method comprises the steps of:

mounting a network interface unit module 60 in the housing in at least one of the plurality of slot cavities 50 of the network access compartment 30;

mounting a corresponding customer access module 70 mounted in the housing in at least one of the plurality of single slot cavities 50 of the customer access compartment 20;

operatively connecting the network interface unit module 60 to a network service provider's facilities 80 (e.g., via interface 64);

operatively connecting the network interface unit module 60 to the corresponding customer access module 70 (e.g., via connectors 62 and 72); and

operatively connecting the customer access module 70 to a customer's telecommunication equipment 90 (e.g., via interface 74) (see e.g., Figure 2; and p. 11, line 18 to p. 13, line 17).

**Independent Claim 14** defines a network interface unit for installation in a network interface device 10 having a housing defining a network access compartment 30 and a customer access compartment 20, each having a plurality of slot cavities 50, wherein the network interface unit comprises a network interface unit module 60 adapted to insert into the confines of at least one

of the slot cavities 50 of the network access compartment 30, and wherein the module 60 comprises network interface unit circuitry 66, an interface 64 for connecting the network interface unit module 66 to a network service provider's facility 80, and a connector 62 for connecting the network interface unit module 60 to a customer access module 70 (see e.g., Figure 2; and p. 11, line 18 to p. 13, line 17).

Independent Claim 15 defines a method of integrating a network interface unit in an existing network interface device having a housing defining a network access compartment 30 and a customer access compartment 20, each having a plurality of slot cavities 50, wherein the method comprises the steps of providing a network interface unit module 60 adapted to insert into the confines of at least one of the slot cavities 50 of the network access compartment 30 such that high speed telecommunications services can be terminated and delivered without having to replace or modify the existing network interface device (see e.g., Figure 2; and p. 11, line 18 to p. 13, line 17).

#### VI. Grounds of Rejection to be Reviewed on Appeal

- 1) Whether Claims 1-15 are clearly anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 6,026,160 to Stabler et

al., as rejected in the Final Office Action mailed January 26, 2005, and as maintained in the Advisory Action of July 14, 2005.

- 2) Whether Claim 15 is unpatentable under 35 U.S.C. §103(a) over Figure 1 of the instant application, as rejected in the Final Office Action mailed January 26, 2005, and as maintained in the Advisory Action of July 14, 2005.

## VII. Argument

- 1) Whether Claims 1-15 are clearly anticipated under 35 U.S.C. §102(b) by U.S. Patent No. 6,026,160 to Stabler et al., as rejected in the Final Office Action mailed January 26, 2005, and as maintained in the Advisory Action of July 14, 2005.

Claims 1-15 have been rejected under 35 U.S.C. 102(b) as being clearly anticipated by U.S. Patent No. 6,026,160 to Stabler et al. For the following reasons, the Examiner's rejection is respectfully traversed.

Stabler et al. does not disclose the same elements ("identity of invention") as Claims 1-15, and thus does not anticipate the same under the law pertaining to 35 U.S.C. §102:

[A]nticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. ... The issue is decided by identifying the elements of the claims, determining their meaning in light of the

specification and prosecution history, and identifying corresponding elements disclosed in the allegedly anticipating reference....

An anticipatory reference must clearly and unequivocally disclose the claimed invention or direct those skilled in the art to the claimed invention without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the reference. ... [A]n anticipation must speak affirmatively and with certainty; must disclose the invention without debate; ... (emphasis added, citations omitted) Idacon Inc. v. Central Forest Products Inc., 3 USPQ2d 1079, 1089 (ED Ok 1986). Accord: Glaverbel S.A. v. Northlake Marketing & Supply Inc., 33 USPQ2d 1496, 1498 (CAFC 1995).

As discussed below, the elements of Claims 1-15, as determined or interpreted in light of the specification and drawings, are not anticipated by Stabler et al. Applicant respectfully asserts that the Examiner's anticipation rejection fails to meet the above identified requirements of the law pertaining to 35 U.S.C. §102.

Applicants further repeat and reallege all of the arguments made in the prior Amendments of September 13, 2004 and June 27, 2005, as though fully stated herein. As previously indicated, Stabler et al. does not anticipate Applicants' claims, i.e., Stabler et al. does not meet all of the claim limitations as required by 35 U.S.C. 102(b). As discussed on page 4, lines 1-12 of this application, Stabler et al. discloses an *ADSL Splitter*, and which is used in conjunction with the existing customer access modules. To the contrary, Applicant's claims comprise a network



interface unit module 60, and a corresponding customer access module 70 (e.g., Claim 1) which has circuitry 76 compatible with the network interface unit module circuitry 66 (e.g., Claims 2-3), and which terminates DSL services (e.g., Claims 4-5). Stabler et al. does not anticipate this.

An ADSL splitter is not the same as a network interface unit, it does not require specific circuitry in the customer access module to be functional, and it does not terminate DSL services. Instead, in Stabler et al., the ADSL Splitter is simply interconnected to the traditional, unmodified customer access modules. In order to achieve NIU functionality in Stabler et al., a separate, traditional network interface unit must be provided as discussed on pages 6-8 of this application.

Accordingly, under the law pertaining to 35 U.S.C. §102, Stabler et al. clearly fails to anticipate numerous elements in Claims 1-15, argued separately below:

#### Claim 1

With respect to Claim 1, Stabler et al. does not disclose, and fails to anticipate, a network interface unit module mounted in the housing in at least one of the slot cavities of the network access compartment. Stabler et al. does not even disclose a network interface unit module. In the art of network interface devices, an

ADSL Splitter is a very different device from a network interface unit, both component-wise and functionality-wise. Additionally, Stabler et al.'s ADSL Splitter is mounted in the subscriber or customer access compartment, not the network access compartment. Still further, Stabler et al. does not disclose, and fails to anticipate, a corresponding customer access module mounted in the housing in at least one of the slot cavities of the customer access compartment. Stabler et al.'s customer access module does not correspond to a network interface unit module, as Stabler et al. does not have a network interface unit module with which to correspond. As such, Stabler et al. does not clearly anticipate Claim 1.

#### Claim 2

With respect to Claim 2, Stabler et al. does not disclose, and fails to anticipate, a network interface unit module including network interface unit circuitry. As discussed above, an ADSL Splitter does not equate to a network interface unit module and does not include network interface unit circuitry. Further, Stabler et al. does not disclose, and fails to anticipate, a network interface unit module including a network service provider interface. Stabler et al.'s ADSL Splitter interfaces only with the traditional customer access module and the subscriber lines, not

the network service provider (see Stabler et al.'s Figure 6). Still further, Stabler et al. does not disclose, and fails to anticipate, a network interface unit module including a customer access module connector, since Stabler et al. does not even disclose a network interface unit module. As such, Stabler et al. does not clearly anticipate Claim 2.

### **Claim 3**

With respect to Claim 3, Stabler et al. does not disclose, and fails to anticipate, a customer access module including customer access module circuitry compatible with network interface unit circuitry. As discussed above, Stabler et al. does not disclose a network interface unit module and does not modify the traditional customer access modules. Thus, Stabler et al. does not disclose or anticipate incorporating circuitry into the customer access module which is compatible with network interface unit circuitry. For this same reason, Stabler et al. does not disclose, and fails to anticipate, a customer access module including a network interface unit module connector. As such, Stabler et al. does not clearly anticipate Claim 3.

### **Claim 4**

With respect to Claim 4, Stabler et al. does not disclose, and fails to anticipate, a network interface unit module which

terminates network services. As discussed above, an ADSL Splitter does not equate to a network interface unit module. Stabler et al.'s ADSL Splitter does not terminate network services. Instead the ADSL service is passed-thru. As such, Stabler et al. does not clearly anticipate Claim 4.

#### Claim 5

With respect to Claim 5, for the reasons discussed above with respect to Claim 4, Stabler et al.'s ADSL Splitter does not terminate HDSL, HDSL2, HDSL4, G.shdsl or T1 services. As such, Stabler et al. does not clearly anticipate Claim 5.

#### Claim 6

With respect to Claim 6, for the reasons discussed above with respect to Claim 1, Stabler et al.'s ADSL Splitter does equate to a network interface unit module which cooperates with the customer access module to deliver high speed telecommunication services. As such, Stabler et al. does not clearly anticipate Claim 6.

#### Claim 7

With respect to Claim 7, for the reasons discussed above with respect to Claim 6, Stabler et al.'s ADSL Splitter does equate to a network interface unit module which cooperates with the customer access module to deliver high speed telecommunication services, namely, Ethernet, Wireless, Home Phoneline Networking Alliance, or

T1 service. As such, Stabler et al. does not clearly anticipate Claim 7.

#### Claim 8

With respect to Claim 8, for the reasons discussed above with respect to Claim 3, Stabler et al.'s customer access module does not include a customer equipment interface. Stabler et al.'s ADSL Splitter has a separate customer interface from the customer access module. As such, Stabler et al. does not clearly anticipate Claim 8.

#### Claim 9

With respect to Claim 9, for the reasons discussed above with respect to Claims 1-3, Stabler et al. does not disclose, and fails to anticipate, the steps of mounting a network interface unit module in the housing in at least one of the slot cavities of the network access compartment, mounting a corresponding customer access module in the housing in at least one of the slot cavities of the customer access compartment, operatively connecting the network interface unit module to a network service provider's facilities, operatively connecting the network interface unit module to the corresponding customer access module, and operatively connecting the customer access module to a customer's telecommunication equipment. Further, as discussed above, Stabler

et al.'s ADSL Splitter is interconnected with the customer access module only, resulting in a significantly different manner of connection than is set forth in the claimed steps. As such, Stabler et al. does not clearly anticipate Claim 9.

#### Claim 10

With respect to Claim 10, Stabler et al. does not disclose, and fails to anticipate, terminating in the network interface unit module a signal received from the NSP's facility. As discussed above, Stabler et al.'s ADSL Splitter does not terminate network services. Instead the ADSL service is passed-thru. As such, Stabler et al. does not clearly anticipate Claim 10.

#### Claim 11

With respect to Claim 11, for the reasons discussed above with respect to Claim 10, Stabler et al.'s ADSL Splitter does not terminate HDSL, HDSL2, HDSL4, ADSL, VDSL, G.shdsl or T1 services. As such, Stabler et al. does not clearly anticipate Claim 11.

#### Claim 12

With respect to Claim 12, for the reasons discussed above with respect to Claim 9, Stabler et al.'s ADSL Splitter does not deliver via the customer access module the high speed telecommunication services. As such, Stabler et al. does not clearly anticipate Claim 12.

### Claim 13

With respect to Claim 13, for the reasons discussed above with respect to Claim 12, Stabler et al.'s ADSL Splitter does not deliver via the customer access module the high speed telecommunication services, namely, Ethernet, Wireless, Home Phoneline Networking Alliance, or T1 service. As such, Stabler et al. does not clearly anticipate Claim 13.

### Claim 14

With respect to Claim 14, for the reasons discussed above with respect to Claims 1-2, Stabler et al. does not disclose, and fails to anticipate, a network interface unit module adapted to insert into the confines of at least one of the slot cavities of the network access compartment, and comprising network interface unit circuitry and a connector for connecting the network interface unit module to a customer access module. As discussed above, Stabler et al.'s ADSL Splitter does not equate to a network interface unit module. As such, Stabler et al. does not clearly anticipate Claim 14.

### Claim 15

With respect to Claim 15, for the reasons discussed above with respect to Claims 1-2 and 4, Stabler et al. does not disclose, and fails to anticipate, providing a network interface unit module

adapted to insert into the confines of at least one of the slot cavities of the network access compartment such that high speed telecommunication services can be terminated and delivered without having to replace or modify the existing network interface device.

As discussed above, Stabler et al.'s ADSL Splitter does not equate to a network interface unit module. As such, Stabler et al. does not clearly anticipate Claim 15.

Accordingly, for the above reasons, Stabler et al. does not clearly anticipate Applicant's Claims 1-15 under the law pertaining to 35 U.S.C. 102.

- 2) **Whether Claim 15 is unpatentable under 35 U.S.C. §103(a) over Figure 1 of the instant application, as rejected in the Final Office Action mailed January 26, 2005, and as maintained in the Advisory Action of July 14, 2005.**

Claim 15 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Figure 1 of the instant application. For the following reasons, the Examiner's rejection is respectfully traversed.

Figure 1 of the instant application does not make obvious Claim 15. Claim 15 requires, *inter alia*, providing a network interface unit module 60 adapted to insert into the confines of one of the slot cavities 50 of the network access compartment 30 of a



NID 10 so that high speed telecommunication services can be terminated and delivered without having to replace or modify the NID. Figure 1 of the instant application is a traditional NID, which cannot provide high speed telecommunication services without being modified as discussed on pages 6-8 of this application. Figure 1 does not teach, suggest or disclose placing a network interface unit module 60 in the network access compartment 30 of the NID (see page 2, line 21 to page 3, line 20, and page 11, lines 6-17 of the instant application). Accordingly, Figure 1 does not make obvious the limitations of Claim 15. It is respectfully submitted that Claim 15 is of proper scope to define over the prior art or record, and as such, Applicant is entitled to such claim scope.

#### **VIII. Claims Appendix**

Set forth below is a copy of the claims (1-15) involved in the appeal:

1. A network interface device comprising:  
a housing defining a network access compartment and a customer access compartment, each having slot cavities;

a network interface unit module mounted in said housing in at least one of said slot cavities of said network access compartment; and

a corresponding customer access module mounted in said housing in at least one of said slot cavities of said customer access compartment.

2. The device of Claim 1, wherein said network interface unit module includes network interface unit circuitry, a network service provider interface, and a customer access module connector.

3. The device of Claim 2, wherein said customer access module includes customer access module circuitry compatible with said network interface unit circuitry, a network interface unit module connector, and a customer equipment interface.

4. The device of Claim 1, wherein said network interface unit module terminates network services.

5. The device of Claim 4, wherein said network services which are terminated are HDSL, HDSL2, HDSL4, G.shdsl or T1 service.

6. The device of Claim 1, wherein said network interface unit module and said customer access module cooperate to deliver high speed telecommunications services.

7. The device of Claim 6, wherein said high speed telecommunications services which are delivered are Ethernet, Wireless, Home Phoneline Networking Alliance, or T1 service.

8. The device of Claim 3, wherein said customer equipment interface is an RJ48 or RJ11 interface or terminal screws.

9. A method of delivering high speed telecommunications services in existing network interface devices having a housing defining a network access compartment and a customer access compartment, each having a plurality of slot cavities, said method comprising the steps of:

mounting a network interface unit module in said housing in at least one of said plurality of slot cavities of said network access compartment;

mounting a corresponding customer access module mounted in said housing in at least one of said plurality of single slot cavities of said customer access compartment;

operatively connecting said network interface unit module to a network service provider's facilities;

operatively connecting said network interface unit module to said corresponding customer access module; and

operatively connecting said customer access module to a customer's telecommunication equipment.

10. The method of Claim 9, further comprising the step of terminating in said network interface unit module a signal received from said network service provider's facility.

11. The method of Claim 10, wherein said signal which is terminated is an HDSL, HDSL2, HDSL4, ADSL, VDSL, G.shdsl or T1 service.

12. The method of Claim 10, further comprising the step of delivering via said customer access module said high speed telecommunications services.

13. The device of Claim 12, wherein said high speed telecommunications services which are delivered are Ethernet, Wireless, Home Phoneline Networking Alliance, or T1 service.

14. A network interface unit for installation in a network interface device having a housing defining a network access compartment and a customer access compartment, each having a plurality of slot cavities, said network interface unit comprising:

a network interface unit module adapted to insert into the confines of at least one of said slot cavities of said network access compartment, said module comprising network interface unit circuitry, an interface for connecting said network interface unit module to a network service provider's facility, and a connector for connecting said network interface unit module to a customer access module.

15. A method of integrating a network interface unit in an existing network interface device having a housing defining a network access compartment and a customer access compartment, each having a plurality of slot cavities, said method comprising the steps of:

providing a network interface unit module adapted to insert into the confines of at least one of said slot cavities of said network access compartment such that high speed telecommunications

services can be terminated and delivered without having to replace or modify the existing network interface device.

**IX. Evidence Appendix**

None

**X. Related Proceedings Appendix**

None

**Conclusion**

Applicants respectfully assert that the Examiner's rejection(s) of Claims 1-15 are inappropriate. Applicants respectfully request that the Examiner's rejections be overturned, and that Claims 1-15 be passed to allowance.

It is noted that the Examiner has not identified the alleged corresponding elements of the cited references which are relied upon in the anticipation rejection of Claims 1-15, and in the obviousness rejection of Claim 15, discussed above. Applicants respectfully request that the Examiner identify each such alleged corresponding element so that Applicants have the opportunity to fairly address the same in a Reply Brief.

A Petition for Extension of Time necessary to make this

response timely is enclosed, along with a form PTO-2038 authorizing a credit card charge of the required extension fee.

The appeal brief fee is also submitted herewith via Credit Card Payment Form PTO-2038. However, the Commissioner is hereby authorized to charge these fee, if there is any problem with the credit card payment, or any additional fees which may be required, including for further extensions of time to make this response timely, to Deposit Account No. 16-0657.

A postcard is enclosed evidencing receipt of the same.

Respectfully submitted,

PATULA & ASSOCIATES, P.C.

A handwritten signature in black ink, appearing to read "C. T. Riggs Jr.", is written above the typed name.

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